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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,584	09/15/2003	Kazuo Hiraoka	2003-1321	8046
513	7590	06/23/2004	EXAMINER	
WENDEROTH, LIND & PONACK, L.L.P.			SHAW, CLIFFORD C	
2033 K STREET N. W.				
SUITE 800			ART UNIT	
WASHINGTON, DC 20006-1021			1725	
			PAPER NUMBER	

DATE MAILED: 06/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/661,584	<b>Applicant(s)</b> HIRAOKA ET AL.	
	<b>Examiner</b> Clifford C Shaw	<b>Art Unit</b> 1725	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>0915</u> . | 6) <input type="checkbox"/> Other: ____  |

**Detailed Action**

1.) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.) Claims 1, 2, 4, 5/(1, 2, 4), and 11/5/(1, 2, 4) are rejected under 35 U.S.C. 102(b) as being anticipated by Arikawa et al.(3,679,866, cited by applicant). The patent to Arikawa et al. discloses the subject matter claimed in either one of Examples III or IV at columns 10 through 11. Note that in either of these examples, a narrow groove of 8 mm is welded with a pulsed D.C. current applied to a consumable arcing electrode. The pulsed D.C. current will inherently increase and decrease the welding rate in the manner claimed.

3.) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4.) Claims 7-11 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arikawa et al. (3,679,866, cited by applicant). Example III in Arikawa et al. discloses the subject matter claimed except for the particular grain size and heat affected zone parameters.

These differences do not patentably distinguish over the prior art. At the time applicant's invention was made, it would have been obvious to have practiced the method of example III of Arikawa et al. with any particular type of steel, including that with the claimed grain size parameters, the motivation being to implement a broad teaching of Arikawa et al. (weld high strength steel) with particular known instantiations of that teaching. In regard to the claimed heat affected zone parameters, it is considered obvious that the welded product of Arikawa et al. will have the heat affected zone parameters corresponding to those claimed since the method of Arikawa et al. is essentially the same as the method set forth by applicant and it would be expected to yield the same results.

5.) Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arikawa et al. (3,679,866, cited by applicant) as applied to claims 7-11 and 13-15 above, and further in view of Inagaki et al. (3,582,607, cited by applicant). The only aspect of the claims to which the rejection above does not apply is the provision for a Uranami welding operation. This difference does not distinguish over the prior art. The patent to Inagaki et al. discusses Uranami welding at its column 1, lines 54-61. On the basis of this discussion, Uranami welding is concerned with welding the first bead in a multiplayer weld. At the time applicant's invention was made, it would have been obvious to have used any well known multi-layer welding refinements for the multi-layer welding taught by Arikawa et al.. In particular, it would have been obvious to have used Uranami welding, the motivation being to secure the advantages of the same for the Uranami bead in Arikawa et al., thereby satisfying the claims.

6.) Claims 3 and 5/3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arikawa et al. (3,679,866, cited by applicant) as applied to claims 1, 2, 4, 5/(2,4), and 11/5/(2,4) above, and further in view of Normando (3,382,345, cited by applicant). It would have been obvious to have employed alternating polarity current in Arikawa et al. to accomplish the periodic heating desired, the motivation being the teachings of Normando that such is advantageous (see column 1, line 57 through column 2, line 8 in Normando), thereby satisfying the claims.


7.) This is a continuation of applicant's earlier Application No. 10/167,593. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Clifford C Shaw at telephone number 571-272-1182. The examiner can normally be reached on Monday through Friday of the first week of the pay period and on Tuesday through Friday of the second week of the pay period.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Thomas G. Dunn, can be reached at 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Clifford C Shaw  
Primary Examiner  
Art Unit 1725

June 21, 2004